



JONATHAN A. ROCHA

Data Scientist · AI/ML Engineer · Full-Stack Developer
737-397-0800 · jarocho@smu.edu · jonathanaaronrocha.com ·
linkedin.com/in/jonathan-rocha-ai · github.com/jonx0037

PROFESSIONAL SUMMARY

Results-driven Data Scientist and AI/ML Engineer with 20+ years of full-stack development experience spanning financial services (Wells Fargo), automotive retail, marketing technology, and AI/ML consulting. Strong interdisciplinary foundation in machine learning, NLP, topological data analysis, and cloud infrastructure. Currently completing an M.S. in Data Science at SMU while building applied ML platforms (finrag.io, datasalt.ai) and the Formal educational platform series (formalml.com, formalstatistics.com, formalcalculus.com). Proven track record delivering production ML systems, educational content tools, and scalable React web applications.

EXPERIENCE

Founder & Chief Executive Officer · *DataSalt.ai* · Austin, TX Feb 2025 – Present

- Founded a boutique AI/ML consultancy serving Texas businesses; published 10 case studies and 7 technical blog posts across retail, agriculture, legal, and healthcare verticals on datasalt.ai (Next.js/Tailwind)
- Created the Formal educational platform series (formalml.com, formalstatistics.com, formalcalculus.com) on a shared Astro 5, React 18, D3.js, KaTeX stack with 130+ published topics across 29 curriculum tracks spanning calculus, statistics, and the mathematical foundations of modern machine learning
- Developed finrag.io, a multimodal financial RAG system using Gemini Embeddings, Qdrant, FastAPI (Fly.io), Claude Sonnet for synthesis, and Next.js (Vercel)

Senior Web Developer & Full-Stack Engineer · *Fullsteam Marketing* · Remote Jan 2015 – Dec 2025

- Architected and maintained React-based web applications; executed full-stack development in JavaScript, Python, and AWS cloud infrastructure
- Contributed to digital growth strategy through data-informed development decisions and cross-team collaboration

Independent Web Development Consultant · *Self-Employed* · Austin, TX 2004 – Present

- Two decades of independent web work; deliver end-to-end custom React solutions, responsive design, and UX/UI for clients ranging from startups to enterprises; manage full project lifecycle from architecture to deployment

Earlier Experience: Senior Web Developer, *Charlie Clark Nissan* (Mar 2009 – Jan 2015) · Web Developer, *Wells Fargo* (Mar 2004 – Mar 2009)

SELECT PROJECTS

market-sentiment.io — Capstone: two-layer pipeline combining GARCH(1,1) volatility modeling with a Statistical Jump Model for cross-asset sentiment regime detection

CounselOS — Multi-agent AI legal matter intake system (FastAPI + Next.js); five-agent pipeline with custom state machine orchestrator, deployed on Railway + Vercel

Persistent Homology for Financial Regime Detection — ML 2 final project applying topological data analysis methods to financial time-series classification

TECHNICAL SKILLS

Languages: Python, R, JavaScript (ES6+), SQL

ML / AI: Scikit-learn, Hugging Face Transformers, BERT, GARCH, TDA (persistent homology, Mapper), Qdrant, ensemble methods, Ollama

Data Science: NLP, statistical modeling, time-series analysis, clustering, classification, data visualization (D3.js, matplotlib)

Web / Infra: React, Next.js, Astro, Node.js, FastAPI, MongoDB, AWS, Vercel, Fly.io, Cloudflare R2, full-stack architecture

EDUCATION

M.S. in Data Science (In Progress) — Southern Methodist University, Dallas, TX 2025 – Aug 2026

M.A. in English — Texas A&M University–Central Texas, Killeen, TX 2023 – 2024

B.A. in History — Texas A&M University, College Station, TX 1999 – 2004